4817

IRON SHIPS.

Reg 17/66

No. 25 Survey held at Dumbarton Date 13th July 1866

on the Ship "Indus" Master Jno Laird

Tonnage under tonnage deck 894.82 Built at Dumbarton When built 1866 Launched 13th July 1866

Ditto of poop — ~~or spar deck~~ 69.05

Ditto of ~~engine~~ Star room 1.65 By whom built Denny & Rankin Owners J. Houseff

Total Register tonnage 900.12 Port belonging to London Destined Voyage Calcutta

Gross tonnage

If Surveyed while Building, Afloat, or in Dry Dock whilst building and afloat

Length aloft (Feet. ~~Inches.~~) 199.0 Extreme Breadth (Feet. Inches.) 33 25 Depth from top of Upper Deck Beam to top of Floor (Feet. Inches.) 21.10 Power of Engines (Horse.) — N°. of Decks Two

(*Dimensions of Ship per Register*, length 199.0 breadth 33.25 depth 21.)

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	8 × 3	8½ × 3
,, if plate iron, breadth and thickness	— " —	— " —
Stem, if bar iron, moulding and thickness	8 × 3	8½ × 3
,, if plate iron, breadth and thickness	— × —	— "
Stern-post, if bar iron, moulding and thickness	8 × 3	8½ × 3
,, ,, if plate iron, breadth and thickness	— " —	— "
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21

	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	Inches. required per Rule.	16ths required per Rule.
Frames, Size of Angle Iron, single ~~or~~ and double	4¾	3	8/16	for 8 to 90 tons Scale		
,, ,, Reversed Iron, ~~if~~ to every frame ~~or~~ every other frame	to upper part of Beams & to the Gunwale					
Floors, depth and thickness of Floor Plate at mid line	23	.	9/16	22½	.	9/16
,, Ditto ditto at Bilge Keelson	9	.	9/16	"	"	"
,, Size of Reversed Angle Iron, and No. 1 & 2 at top of Floor Plate	3	3	7/16	3	3	7/16
Beams, Deck (N°. 1) ~~double Angle Iron, Plate, Tee, or~~ Bulb Iron	8¼	.	8/16	8	.	8/16
,, ,, double ~~or single~~ Angle Iron, on upper edge	3	3	6/16	3	3	6/16
,, ,, average space between	3 feet	0 ins		3 feet		
,, Hold, or Lower Deck (N°. 1) ~~double Angle, Tee, Plate, or~~ Bulb Iron	8¼	.	8/16	8		
,, ,, double ~~or single~~ Angle Iron on upper edge	3	3	6/16	3	3	6/16
,, ,, average space between	3 feet	0 ins		3		
,, Paddle, sided and moulded, ____ thickness of Plate ____ size of Angle Iron	"		"			
,, Engine ,, ,, ,, ,,	"					
Keelson, single or double plate, box, or intercostal	Intercostal					
,, Size of Plates	33	.	9/16			
,, Size of Angle Irons	5	4	9/16	5	4	9/16
,, Side, ~~single~~ or d'ble, ~~plate, box, or intercostal~~	5	4	9/16	5	4	9/16
,, Bilge (No. One Bilge) at each Bilge ~~single, or~~ double, ~~plate, or box~~	5	4	9/16	5	4	9/16

	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths required per Rule.
Plates in Garboard Strakes, breadth and thickness	33	12/16		
Ditto from Garboard to upper part of Bilges		11/16		
,, from upper part of Bilge to a perpendicular height from upper side of Keel of ⅗ths the entire depth of Hold		10/16		
,, from ⅗ths depth of Hold to lower edge of Sheerstrake		9/16		
,, Sheerstrake, breadth and thickness	33	11/16		
Butt Straps to outside plating, breadth and thickness	9 ins	10/16 · 11/16 & 12/16		
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	28	9/16		
Angle Iron on ditto	5 × 4	8/16		
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	12	9/16		
Diagonal Tie Plates on ditto	12	9/16		
Planksheer, materials and scantlings Iron	Bulwarks			
Waterway ditto ditto Gutter	"			
Flat of Upper Deck, thickness and material	3½	Yellow Pine		
,, ,, how fastened to Beams	Nut and Screw Bolts			
Ceiling betwixt Decks and in Hold, thickness and material	Battens 2¼	Ame. Pitch Pine		
Clamps or Spirketting ditto	"	"		
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	22	9/16		
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	12	9/16		
Stringers in Hold	5 × 4 ×	8/16		
Flat of Lower Deck, thickness and material	3 × 1	Yellow Pine		
Main piece of Rudder, diameter at head	5½			
,, ,, ,, at heel	3			

(*Can the Rudder be unshipped afloat?* Yes)

Bulkheads, N°. Two Thickness of 6/16

,, Height up fore one to upper deck, aft one to N°. B.

,, how secured to the sides of the ship riveted between two L's

,, size of vertical angle irons 3 × 3 × 7/16 and their distance apart 30 ins

Transoms, material Iron Plate or, if none, in what manner compensated for.

Knight-heads, and Hawse Timbers Iron Frames.

The Frames extend in one length from middle line to Gunwale rivetted through plates with (7/16 in.) rivets, about (5 ins) apart.

The reverse angle irons on the floors extend in one length across the middle line from upper part of Hold Beams to D.

,, ,, ,, on the frames ,, ,, ,, from middle line to Gunwale

Keelson, how are the various lengths of plates or angle irons connected? by lining pieces

Plates, Garboard, double ~~or~~ rivetted to keel, double ~~or~~ at upper edge, with rivets (7/8 & 7/8 ins.) diameter, averaging (3 in.) apart.

,, Edges from Garboards to upper part of bilge, worked clencher, double ~~or single~~ rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart.

,, Butts from Keel to turn of bilge, worked carvel with butt straps (12/16 & 11/16) thick, double ~~or single~~ rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? Yes

,, Edges from bilge to sheerstrake, worked ~~carvel with a lining piece~~ ( ) ~~thick~~, ~~or~~ clencher, double ~~or~~ ~~single~~ rivetted; with rivets (7/8 in.) diameter, averaging (3 in.) apart. Do the butt straps ~~lap~~ over and rivet through the lands of the strake below? No

,, Edges of Sheerstrake, double ~~or~~ single rivetted? At upper edge Single At lower edge Double

,, Butts from bilge to planksheers, worked carvel with butt straps (10/16 & 11/16) thick, double ~~or~~ ~~single~~ rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart. Breadth of laps in double rivetting (5½ D.) Breadth of laps in single rivetting ( )

Butt Straps of Keelsons, Stringer and Tie Plates, double ~~or~~ single rivetted? Double

Planksheer, how secured to the plating of the sides } *Explain by sketch if necessary.* } Iron Bulwarks

Waterway ,, ,, planksheer and to the Beams } Gutter Waterway

Deck Beams, how secured to the side Welded Knees Rivetted to Frames

Hold or Lower Deck ditto D. D.

Paddle ,, ,, No. of breasthooks Four crutches Four

What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Glasgow Boiler

Manufacturer's name or trade mark

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature Denny & Rankin *Surveyor's Signature* J. D. Dalziel

© 2019 Lloyd's Register Foundation

IRON1439-0440

4817 Iron

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes

Do the edges of the carvel work and of the butts fay close together throughout their length without requiring any making good of deficiencies? Yes

Do the fillings between the ribs and plates fill in solid with single pieces? ~~or are they in short lengths of various thicknesses?~~ Yes

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the outer plate? Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? a few in corners of Butts

---

Her Masts, Bowsprit, Yards, &c., are in Good condition, and sufficient in size and length. *(If they are of Iron or Steel give the Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of rivetting, quality of Materials, and if stamped with Maker's name.*

She has SAILS.

No. double suit of Sails and — .

- Fore Sails,
- Fore Top Sails,
- Fore Topmast Stay Sails,
- Main Sails,
- Main Top Sails,

Tested by Capt. Burrell 27th Mch 1866

CABLES, &c.

	Fathoms.	Inches.	Tested to Tons.
Chain	300	1 7/16	51 1/3
Hempen Stream Cable	90	10	
Hawser Chain	60	1 1/8	
Towlines	90	9	
Warp	90	5 1/2	

All of Good quality.

Tested by Capt. Burrell 20th Mch 1866

ANCHORS, and their weights.

	No.	Weight. Ex. Stock	Tested to Tons.
Bowers,	3	29.1.2 / 5.2.2	28.2.0
		28.2.20 / 5.1.21	27.13.1
		27.2.15 / 5.2.0	26.0.3.14
Stream,	1	See Note	annexed
Kedges,	2	5.3.24	
		2.3.12	

Her Standing and Running Rigging Galv. Wire & Hemp sufficient in size and Good in quality.

She has two 34 ft Life Boats ~~Long Boat and~~ two 34 ft Cutters, and one 22 ft Jolly Boat

The present state of the Windlass is new Capstan new and Rudder new Pumps new and efficient

---

Order for Special Survey No. 41 Date Septr 26/65

Order for Ordinary Survey No. ____ Date ____

DATES of Surveys held while building as per Section 18.

1st. On the several parts of the frame, when in place, and before the plating was wrought ____

2nd. On the plating during the progress of rivetting Built under Special

3rd. When the beams were in and fastened, and before the decks were laid Survey from the

4th. When the ship was complete, and before the plating was finally coated 13th October 65th the

5th. After the ship was launched 5th July 1866

State if she has a Spar Deck No Poop Yes or Forecastle Yes

General Remarks,

Butts of Floors are overlapped and treble rivetted. Middle line Intercostal Keelson stands 9½ above tops of Floors, and fitted with four Angle Bars, the two lower ones are 5×4×9/16, the upper 4½×3×7/16 with a flat plate rivetted on top 6½×9/16. Butts of Gunwale Plate are treble rivetted. Fore, main, mizzen and Bowsprit of Iron, formed of three Plates 7/16 thick, lands double clenched, butts double carvel rivd. Fore and main Topmasts of Steel of two plates, carvel lands and Butts double rivetted 5/16 thick, main Yards and lower Topsail Yards of Iron 5/16 & 4/16 thick, lands single clenched, Butts double carvel rivetted; remainder of Spars are of Wood

---

In what manner are the surfaces preserved from oxidation? Inside Flat of Bottom with Portland Cement,

Ditto ditto Outside rest with Red Lead and Oil paints

I am of opinion this Vessel should be Classed A 1

The amount of the Fee .....£ 5 : " : " is received by me,

July 1866 Special .....£ 48 : 6 : "

Certificate (if required) .....£ ~~Gratis~~

Committee's Minute 13th / 20th July 1866 / 1866

Character assigned A 1 (A and I)

B. Darling

Deferred

If this Vessel were to be Classed Lloyd's Stores completed the work to be Classed first class A 1 July 1866

© 2019 Lloyd's Register Foundation